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IS 11280 (1996): House hold sewing machines - Feed bar [MED
29: Sewing Machines]



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“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक

घरेलू सिलाई मशीन — फीड बार — विशिष्ट

(पहला पुनरीक्षण)

Indian Standard

HOUSEHOLD SEWING MACHINES —
FEED BARS — SPECIFICATION

(*First Revision*)

ICS 61.080

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Sewing Machines Sectional Committee had been approved by the Light Mechanical Engineering Division Council.

This standard was originally published in 1985. This revision has been undertaken to incorporate material details and rationalize the types and sizes of sewing machines components for manufacturing in economic quantities.

For general requirements of sewing machine IS 1610 : 1989 'Household sewing machines — General requirement (*second revision*)' may be referred to. A list of Indian Standards on sewing machines and their components is given in Annex B.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

HOUSEHOLD SEWING MACHINES — FEED BARS — SPECIFICATION

(First Revision)

1 SCOPE

This standard specifies the requirements for feed bar for sewing machines (both for Type A and Type B) for household purposes.

2 REFERENCES

The following standards contain provisions which, through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

IS No.	Title
210 : 1993	Grey iron castings (<i>fourth revision</i>)
1068 : 1993	Electroplated coating of nickel plus chromium and copper plus nickel plus chromium — Specification (<i>third revision</i>)
1875 : 1992	Carbon steel billets, blooms, slabs and bars for forging — Specification (<i>fifth revision</i>)
2500 (Part 1) : 1992	Sampling inspection procedures: Part 1 Attribute sampling plans indexed by acceptable quality

level (AQL) for lot-by-lot inspection (*second revision*)

Methods for random sampling

3 NOMENCLATURE

The nomenclature of feed bar shall be as indicated in Fig. 1.

4 MATERIALS

4.1 Either cast iron or steel may be used for manufacturing feed bars. Cast iron used for feed bars shall conform to Grade FG 150 of IS 210 : 1993.

4.2 Feed bars made from steel forging shall be manufactured from steel such as Grade 20 C8 of IS 1875 : 1992.

5 HARDNESS

The bearing surfaces for feed holder roller and centres for feed bar set screw shall have a minimum hardness of 400 HV. Components made from 20 C8 shall have a minimum hardness of 400 HV.

6 TYPES AND DIMENSIONS

The types and dimensions of feed bar shall be as given in Fig. 2.

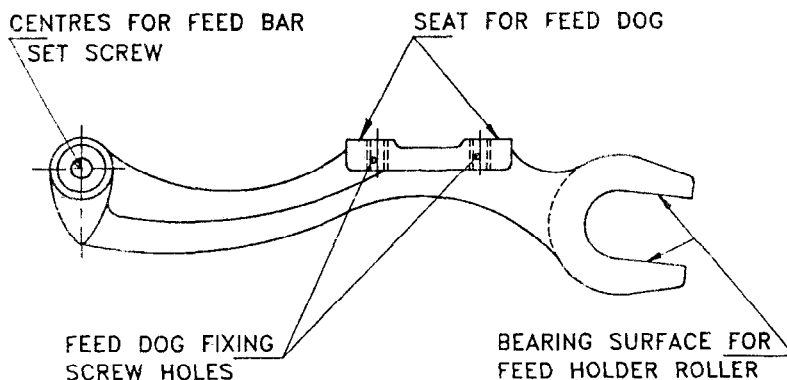
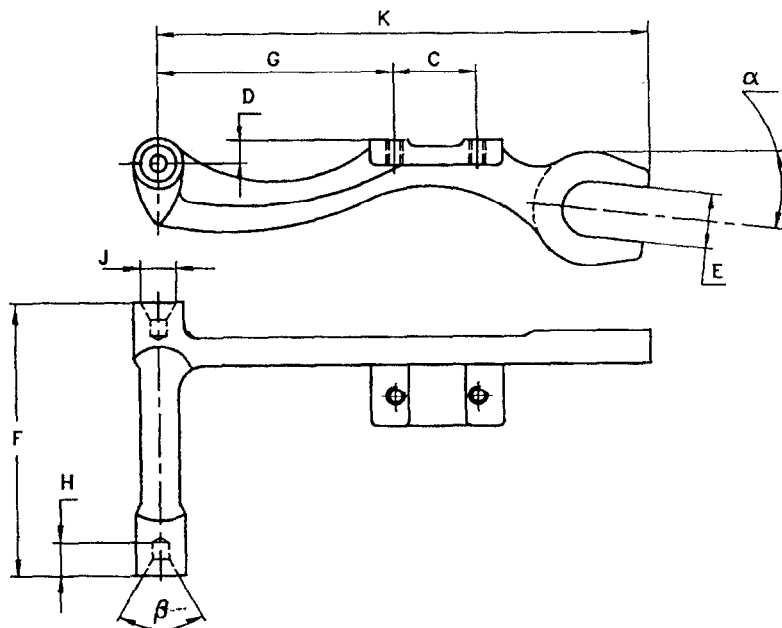


FIG. 1 NOMENCLATURE FOR FEED BAR



All dimensions in millimetres.

Dimensions		C	D	E	F	G	H	J	K	α	β
Type A	Max	14.80	2.35	9.815	52.10	43.10	6.10	5.97	88.2	$6^\circ \pm 30'$	$47^\circ + 0^\circ$
	Min	14.60	2.25	9.800	51.90	42.90	5.90	5.84	87.8	Nil	$-30'$
Type B	Max	15.29	2.11	9.88	50.90	43.23	5.38	5.81	88.9	Nil	$6^\circ \pm 30'$
	Min	15.19	1.95	9.86	50.67	43.13	4.77	5.56	88.4		

FIG. 2 DIMENSIONS FOR FEED BAR

7 WORKMANSHIP AND FINISH

7.1 The bearing surfaces and feed dog seat of feed bar shall be precision ground to a smooth finish.

7.2 The centres for feed bar set screws shall have a smooth finish.

7.3 The feed bar shall be free from defects such as cracks, flaws, blow holes, burrs, rust, dust, etc.

7.4 Cast iron feed bar shall have nickel plated/blackened surface finish conforming to at least Service Grade No. 1 with Designation Fe/Ni 10b Cr r of IS 1068 : 1993.

7.5 Forged steel feed bar shall be chemically blackened.

8 DESIGNATION

The feed bars shall be designated by the part name, that is 'Feed Bar': Type and number of this Indian Standard. A feed bar of Type B shall be designated as:

Feed Bar B IS 11280

9 SAMPLING

Unless otherwise agreed to between the supplier and the purchaser, the sampling plan as given in Annex A shall be followed. For further information, reference may be made to IS 2500 (Part 1): 1992.

10 MARKING

10.1 Each piece of the feed bar shall be legibly and indelibly marked with the following:

- Source of manufacture and trade-mark, if any; and
- Type of oscillating shaft.

10.2 BIS Certification Marking

The product may also be marked with the Standard Mark.

10.2.1 The use of the Standard Mark is governed by the provision of *Bureau of Indian Standards Act, 1986* and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

11 PACKING

11.1 Each feed bar shall be wrapped separately in polyethylene bag after proper cleaning and removing dust, etc, in such a manner that no dust can enter it.

11.2 The wrapped feed bars shall be securely packed in a packing case in accordance with the best prevailing trade practice. The number of feed bars to be packed in a packing case shall be as agreed to between the supplier and the purchaser.

ANNEX A

(Clause 9)

SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY

A-1 SCALE OF SAMPLING

A-1.1 Lot

In any consignment all the feed bars of same type and manufactured from the same material under essentially similar conditions of manufacture shall be grouped together to constitute a lot.

A-1.2 For ascertaining the conformity of the lot to the requirements of specification, tests shall be carried out for each lot separately. The number of feed bars to be selected at random for this purpose shall be in accordance with col 1 and 2 of Table 1.

A-1.3 If the feed bars are packed individually, in order to ensure the randomness of selection, IS 4905 : 1968 shall be used.

A-1.4 If the feed bars are packed in different cartons, a suitable number of cartons (not less than 20 percent of the total in the lot subject to a minimum of 2) shall be chosen at random. From each of the cartons so chosen, an approximately equal number of feed bars shall be picked up from its different parts so as to obtain the required number of feed bars specified in col 2 of Table 1.

A-2 NUMBER OF TESTS AND CRITERIA FOR CONFORMITY

A-2.1 The feed bars selected according to A-1.2 and A-1.3 or A-1.4 shall be examined for dimensions (see 6) and workmanship and finish (see 7). If the number of feed bars failing to meet one or more of the requirements mentioned above is less than or equal to the permissible number of defectives given in col 3 of Table 1, the lot shall be declared as conforming to the requirements of those characteristics.

A-2.2 In the case of lots which have been found satisfactory according to A-2.1, a number of forged steel feed bars equal to the sample size indicated in col 4 of Table 1, shall be subjected to hardness test (see 5). Any forged steel feed bar failing to meet the requirements of hardness shall be considered to be defective.

A-2.2.1 If no defectives are found among the forged steel feed bars subjected to the hardness test (see A-2.2), the lot shall be declared as conforming to the requirements of the specification, otherwise not.

Table 1 Scale of Sampling and Permissible Number of Defectives
(Clauses A-1.2, A-1.4, A-2.1 and A-2.2)

No. of Feed Bar	For Dimensions, Tolerances and Workmanship and Finish		Sample Size
	Sample Size	Permissible No. of Defectives ¹⁾	Hardness on Forged Steel Feed Bars
<i>N</i> (1)	<i>n</i> (2)	(3)	(4)
Up to 15	5	0	2
16 to 40	8	0	3
41 " 110	13	0	3
111 " 300	20	1	5
301 " 500	32	1	6
501 " 800	50	2	8
801 " 1 300	80	3	10
1 301 and above	125	5	15

¹⁾ This ensures that lots containing only 1.5 percent or less defective will be acceptable most of the time.

ANNEX B

(Foreword)

LIST OF INDIAN STANDARDS ON SEWING MACHINES

<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
1294 : 1989	Bobbins for sewing machines for household purposes (<i>third revision</i>)	4340 : 1967	Needle bar link for sewing machines for household purposes
1295 : 1990	Household sewing machines — Needle bar — Specification (<i>second revision</i>)	4341 : 1967	Feed holder roller for sewing machines for household purposes
1297 : 1991	Household sewing machines — Presser bar — Specification (<i>third revision</i>)	4342 : 1967	Square slider for oscillating rock shaft for sewing machines for household purposes
1610 : 1989	Household sewing machines — General requirements (<i>second revision</i>)	4632 : 1968	Square slider for stitch regulator shaft for sewing machines for household purposes
2181 : 1973	Household sewing machine needles (<i>first revision</i>)	4735 : 1968	Arm shaft cams for sewing machines for household purposes
3290 : 1994	Household sewing machines — Thread take-up lever sub-assembly for cam type sewing machines — Specification (<i>third revision</i>)	5740 : 1996	Household sewing machines — Memorandum of screw threads for sewing machine components (<i>first revision</i>)
3291 : 1968	Thread take-up cams for sewing machines for household purposes (<i>first revision</i>)	6903 : 1973	Glossary of terms relating to sewing machines for household purposes
3299 : 1969	Oscillating rock shafts for sewing machines for household purposes (<i>first revision</i>)	7491 : 1989	Sewing machines, household — Accuracy requirements (<i>first revision</i>)
3375 : 1991	Household sewing machines — Bobbin case — Specification	7492 : 1989	Sewing machines, household — Sewing requirements (<i>first revision</i>)
3816 : 1966	Connecting rods for sewing machines for household purposes	7493 : 1989	Sewing machines, household — Durability requirements (<i>first revision</i>)
3817 : 1991	Household sewing machines — Arms shaft — Specification (<i>first revision</i>)	8892 : 1978	Bobbins for sewing machines with rotating hooks for industrial use
3868 : 1966	Feed lifting rock shaft for sewing machines for household purposes	9152 : 1979	Glossary of terms and identification symbols relating to classification of industrial sewing machines
4181 : 1967	Feed fork for sewing machines for household purposes	9697 : 1980	Bobbin cases for sewing machines with rotating hooks for industrial use
4188 : 1996	Household sewing machines — Oscillating shaft — Specification (<i>first revision</i>)	9874 : 1981	Arm and bed assembly for sewing machines for household purposes
4338 : 1991	Household sewing machines — Vertical oscillating shuttle — Specification (<i>second revision</i>)	10040 : 1981	Rotating hooks for sewing machines for industrial use
4339 : 1967	Needle bar link studs for sewing machines for household purposes		

<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
10304 : 1982	Feed rock shaft for sewing machines for household purposes	12789 : 1989	Household sewing machines — Table and base
10305 : 1982	Feed rock shaft crank for sewing machine for household purposes	12798 : 1989	Household sewing machines — Fly wheels — Specification
10306 : 1982	Feed lifting rock shaft crank for sewing machines for household purposes	13120 : 1991	Household sewing machines — Flywheel bush — Specification
11280 : 1996	Household sewing machines — Feed bars — Specification (<i>first revision</i>)	13192 : 1991	Household sewing machines — Hand attachment assembly
11345 : 1985	Oscillating shaft crank for sewing machines for household purposes	13806 : 1993	Household sewing machine — Closed type shuttle race assembly — Specification
11347 : 1995	Household sewing machines — Shuttle driver — Specification (<i>first revision</i>)	13825 : 1993	Household sewing machine — Arm shaft front bush — Specification
12058 : 1987	Slide plates for sewing machines for household purposes	13872 : 1993	Household sewing machine — Stitch regulator — Specification
12109 : 1987	General requirements for light duty sewing machine heads for industrial use	13972 : 1994	Household sewing machine — Bobbin winder assembly — Specification
12740 : 1989	Household sewing machines — Stand — Specification	14207 : 1995	Household sewing machine — Open type shuttle race sub-assembly — Specification

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BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones : 323 01 31, 323 83 75, 323 94 02

Telegrams : Manaksanstha
(Common to all offices)

Regional Offices :

Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg
NEW DELHI 110002

Telephone

{ 323 76 17
323 38 41

Eastern : 1/14 C. I.T. Scheme VII M, V. I. P. Road, Maniktola
CALCUTTA 700054

{ 337 84 99, 337 85 61
337 86 26, 337 91 20

Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160022

{ 60 38 43
60 20 25

Southern : C. I. T. Campus, IV Cross Road, MADRAS 600113

{ 235 02 16, 235 04 42
235 15 19, 235 23 15

Western : Manakalaya, E9 MIDC, Marol, Andheri (East)
MUMBAI 400093

{ 832 92 95, 832 78 58
832 78 91, 832 78 92

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